

## ABSTRACT OF DISCLOSURE

A flip-chip ball grid array integrated circuit package with improved thermo-mechanical properties is provided. The package includes a substrate having first and second surfaces and a plurality of conductive traces therebetween. A semiconductor die is flip-chip mounted to the first surface of the substrate and electrically connected to ones of the conductive traces. An intermetallic heat spreader is fixed to a back side of the semiconductor die and a plurality of contact balls are disposed on the second surface of the substrate. The contact balls are in the form of a ball grid array and ones of the contact balls of the ball grid array are electrically connected to ones of the conductive traces.